

## AMENDMENTS

### In the Specification:

Page 1, amend the Title as follows: HIP PROSTHESIS ~~COMPRISING~~ INCLUDING A SHAFT TO BE FIXED IN THE MEDULARY CANAL OF THE FEMUR.

Page 1, line 4, insert the heading:

### FIELD AND BACKGROUND OF THE INVENTION

Page 1, line 34, insert the heading:

### SUMMARY OF THE INVENTION

Page 2, lines 4-6, amend the paragraph as follows:

The solution according to the invention lies in the features of ~~claim 1 and preferably those of the dependent claims~~ as disclosed below. In particular, the invention is a hip prosthesis that includes a shaft which is configured to be anchored in the medullary canal of the a femur and has a distal portion which is configured to be anchored in the diaphysis. The shaft has a core cross- section which tapers toward the distal end of the shaft and has longitudinal ribs on the lateral and medial sides whose height increases from a proximal portion of the shaft to a distal end portion of the shaft. The shaft core cross-section at a distance of 1 cm from the distal end portion being substantially rectangular, with an axis ratio of at least 1:4 or, in some embodiments, at least 1:5. Near its distal end at least, the shaft has a rib on each of its two lateral edges, the height of which is on average under 2 mm, the boundary of the shaft core cross-section between the two ribs located on the lateral edges not protruding further laterally from the prosthesis than the two ribs located on the lateral edges. A rib may also be provided between the two ribs located on the lateral edges that protrudes from the prosthesis by not more than 2 mm further laterally than these two ribs. The shaft may also include ribs provided on each of the medial edges. Where a rib is provided between the rib on the lateral and medial edges, it preferably protrudes not more than 2 mm in the a ventral or dorsal direction from the prosthesis than the ribs arranged on the lateral and medial edges. The ribs may be rough.

The shaft may have a core cross-section that tapers on average at least 8 mm<sup>2</sup>/cm of length, preferably over 10 mm<sup>2</sup>/cm of length, along a length of the shaft of at least 4 cm. The prosthesis has a reduction in cross-sectional dimension in the latero-medial direction of the distal shaft portion along a length of at least 4 cm of the distal shaft portion of on average at least 0.5 mm/cm of length, preferably more than 0.8 mm/cm of length. The rib height may increase from the proximal end of the distal portion to its distal end by an amount of from less than 0.5 mm to 0.5 to 1.5 mm.

Page 4, lines 11-13, amend the paragraph as follows:

In the latero-medial (hereinafter abbreviated "LM") [[LM]] plane, the tapering of the core size along a length of 4 cm should be at least 0.5 mm/cm, and preferably approximately 1 mm/cm.

Page 6, line 29, insert the heading:

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

Page 7, line 4, insert the heading:

#### **DETAILED DESCRIPTION OF THE INVENTION**

Replace the Abstract of the Disclosure with the abstract attached in the appendix.